UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,353	03/01/2004	Karl Heinz Kremer	H10514/JDP	9415

1333	7590	04/20/2006

BETH READ
PATENT LEGAL STAFF
EASTMAN KODAK COMPANY
343 STATE STREET
ROCHESTER, NY 14650-2201

EXAMINER
TSUI, WILSON W

ART UNIT	PAPER NUMBER
2178	

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 March 2004</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-45</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-45</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This action is filed in response to the application filed on 3/1/2004.

2.   Claims 1-45 are pending. Claims 1, 17, 32, and 45 are independent claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1, 3-5, 10-13, 17, 19-21, 26-29, 32, 33-36, and 41-44 are rejected under

35 U.S.C. 103(a) as being unpatentable over Arnold et al (US Application: US

2003/0167271 A1, published: Sep. 4, 2003, filed: Aug. 28, 2001) in further view of

CTAN (Dante, published: October 2002, page 1) and Hull (US Patent: 5,832,110,

issued: Nov. 3, 1998, filed: May. 28, 1996).

With regards to claim 1, Arnold et al teaches a method comprising:

Generating a portable document format pages (paragraph 0006), *corresponding to*

pages of a book (paragraph 0004: whereas, content of the pages can come from a

book, and all pages of the book are processed (Abstract: whereas all pages are

processed in the RDO file for conversion to PDF)) *wherein the PDF page comprises*

content areas of text or graphics or both and non-content areas (Arnold et al, paragraph

0211, claim 18: whereas, the pdf pages contain image data gathered from a RDO file,

an also, the pdf pages contain margin data (non-content/white space area) from a RDO

file).

However, Arnold et al does not teach a method for *removing from the PDF pages peripheral, non-content areas to generate cropped PDF pages of the content areas on the page, and selecting a feature of the cropped PDF pages common to all the cropped PDF pages and aligning all cropped PDF pages to the selected feature.*

CTAN teaches a method *for removing from a PDF page peripheral, non-content areas to generate a cropped PDF page of the content area of the page* (page 1: whereas, "PDFCROP takes a PDF file as input, calculates the BoundingBox for each page by the help of ghost script, and generates an output PDF file with removed margins" (where the margins are white space/non-content areas that border the content, and all cropped content is saved in a single output PDF file)).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Arnold et al's PDF generating system to further include the ability to crop non-content areas of a PDF to produce a cropped PDF as taught by CTAN, for each page of the book. The combination of Arnold et al and CTAN would have allowed Arnold et al's PDF generating system to have been able to have produced PDFs that are reduced in size for optimal storage and manipulation purposes.

However, Arnold et al and CTAN do not teach *selecting a feature of the cropped PDF pages common to all the cropped PDF pages and aligning all cropped PDF pages to the selected feature.*

Hull teaches a method *for selecting a feature of* a fragment of a first image *and aligning* a second image *fragment to the selected feature* (column 3, lines 40-51:

whereas through the use of image registration, images are aligned with each other using a common selected features).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Arnold et al, and CTAN's PDF modification and generation system to have further included to the ability to align cropped image document data (such as image data in PDF documents) through the method of aligning images using features that are common from another image. The combination of Arnold et al, CTAN, and Hull would have allowed Arnold et al's system to have been able to have generated PDF documents that are cropped and aligned through a selected feature that is common among PDF documents ("using an improved method of image registration" (Hull, column 2, lines 11-13)).

With regards to claim 3, which depends on claim 1, Arnold et al and CTAN teach a method for *cropping* PDF pages, in claim 1, and is rejected under the same rationale.

Furthermore, Arnold et al teaches the *PDF pages* generated will *contain image and text content* (paragraph 0017: whereas, the content retrieved from the RDO files to be placed in PDF pages include image (TIFF files) and text data (page numbers)).

Thus, it would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Arnold et al's PDF generation system to have used CTAN's method for cropping PDF pages, such the cropped pages comprise areas that enclose image and text content. This would have allowed Arnold et al's system to produced cropped PDF pages that contain text and image data.

With regards to claim 4, which depends on claim 1, Arnold et al, CTAN, and Hull teach a method wherein *the non-content portions correspond to white space comprising the borders around content*, in claim 1, and is rejected under the same rationale.

With regards to claim 5, which depends on claim 1, Arnold et al, CTAN, and Hull teach a similar method wherein *the method generates one cropped PDF page comprising all the content on the page*, in claim 1, and is rejected under the same rationale.

With regards to claim 10, which depends on claim 1, Arnold et al, CTAN, and Hull teaches a method for *selecting a common feature*, in claim 1, and is rejected under the same rationale.

Additionally, Hull teaches *automatically selecting* a common feature for alignment (column 1, lines 24-36: automatic selection is accomplished through automatic registration).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Arnold et al, CTAN, and Hull's PDF alignment system, to further use a method for automatic alignment as also taught by Hull. The combination of Arnold et al, CTAN, and Hull, would then have allowed users of Arnold et al's system to have avoided manual alignment which would have been "labor intensive and slow" (column 1, lines 21-23).

With regards to claim 11, which depends on claim 1, Arnold et al, CTAN, and Hull teach *the cropped PDF pages*, in claim 1, and is rejected under the same rationale.

Additionally, Hull teaches *comparing images to each other to show their relative correspondence to each other* (column 1, lines 16-23: whereas, a user compares two images to each other and thus, also views the correspondence to each other).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Arnold et al, CTAN, and Hull's cropped PDF alignment system to have further used Hull's method for comparing images to each other, such that cropped PDF images are compared to each other as well. The combination of Arnold et al, CTAN, and Hull would have allowed PDF images to be visually compared against each other for preview, or manual alignment purposes.

With regards to claim 12, which depends on claim 11, Arnold et al, CTAN, and Hull teach *aligning PDF pages*, in claim 1, and is rejected under the same rationale.

Furthermore, Hull teaches a method for *manually aligning a selected image to the common feature of another image* (column 1, lines 16-23: whereas, a user manually chooses one or more features for aligning the two images).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Arnold et al, CTAN, and Hull's PDF alignment system to further include the ability to manually align images, as also taught by Hull, such that the combination would have allowed PDF images to be aligned with each other by referencing a common feature.

With regards to claim 13, which depends on claim 1, Arnold et al, CTAN, and Hull teach *aligning the pages*, in claim 1, and is rejected under the same rationale. Furthermore, Hull teaches a method for displaying aligned images (column 1, lines 15-

23: whereas, a user views a display of images and manually moves an image until the common points are displayed as aligned, and thus the pages are displayed as aligned.)

With regards to claim 17, Arnold et al, CTAN, and Hull teach a method comprising:

- *Wherein the PDF pages comprise content areas of text or graphics or both and non-content areas surrounding content areas*, as explained in claim 1, and is rejected under the same rationale.

- *Removing peripheral, non-content areas to generate cropped PDF pages of the content areas on the pages of the book,* as explained in claim 1, and is rejected under the same rationale.

- *Selecting a feature of the cropped PDF pages common to all the PDF pages*, as explained in claim 1, and is rejected under the same rationale.

- *Aligning all PDF pages to the selected feature*, as explained in claim 1, and is rejected under the same rationale.

Furthermore, Arnold et al teaches a method for:

- *Scanning the pages of a book to create portable document pages* (paragraphs 0004-0005: whereas, pages from books are scanned into RDO format, and then converted to created PDF pages).

- *Printing the book* (paragraph 0034: whereas, a JDF file is used with the PDF format to produce a print job for printing the book).

With regards to claim 19, which depends on claim 17, for performing a method similar to claim 3, is rejected under the same rationale.

With regards to claim 20, which depends on claim 17, for performing a method similar to claim 4, is rejected under the same rationale.

With regards to claim 21, which depends on claim 17, for performing a method similar to claim 5, is rejected under the same rationale.

With regards to claim 26, which depends on claim 17, for performing a method similar to claim 10, is rejected under the same rationale.

With regards to claim 27, which depends on claim 17, for performing a method similar to claim 11, is rejected under the same rationale.

With regards to claim 28, which depends on claim 27, for performing a method similar to claim 12, is rejected under the same rationale.

With regards to claim 29, which depends on claim 17, for performing a method similar to claim 13, is rejected under the same rationale.

With regards to claim 32, for an apparatus performing a method similar to the method in claim 1, is rejected under the same rationale.

With regards to claim 34, which depends on claim 32, for an apparatus performing a method similar to the method in claim 3, is rejected under the same rationale.

With regards to claim 35, which depends on claim 32, for an apparatus performing a method similar to the method in claim 4, is rejected under the same rationale.

With regards to claim 36, which depends on claim 32, for an apparatus performing a method similar to the method in claim 5, is rejected under the same rationale.

With regards to claim 41, which depends on claim 32, for an apparatus performing a method similar to the method in claim 10, is rejected under the same rationale.

With regards to claim 42, which depends on claim 32, for an apparatus performing a method similar to the method in claim 11, is rejected under the same rationale.

With regards to claim 43, which depends on claim 42, for an apparatus performing a method similar to the method in claim 12, is rejected under the same rationale.

With regards to claim 44, which depends on claim 32, for an apparatus performing a method similar to the method in clam 13, is rejected under the same rationale.

4.   Claims 2, 18, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold et al (US Application: US 2003/0167271 A1, published: Sep. 4, 2003, filed: Aug. 28, 2001), CTAN (Dante, published: October 2002, page 1) and Hull (US Patent: 5,832,110, issued: Nov. 3, 1998, filed: May. 28, 1996) in further view of Lahey et al (US Patent: 5,999,945, issued: Dec. 7, 1999, filed: Sep 15, 1997).

With regards to claim 2, Arnold et al, CTAN, and Hull teach *selecting a feature of cropped/segmented content*, as similarly explained in claim rejection 1, and is rejected under the same rationale. However Arnold et al, CTAN, and Hull do not teach a method for selecting a *corner* of the content of the pages.

Lahey et al teaches aligning a set of pages by aligning the corner of content to a particular *corner* in an output page (FIG 6b, column 8, lines 47-52: whereas a pages are aligned by choosing a corner, such as 'upper left').

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Arnold et al, CTAN, and Hull's method for selecting a feature of cropped/segmented content, to further select a corner, for aligning as taught by Lahey et al. The combination of Arnold et al, CTAN, Hull, and Lahey et al would have

allowed Arnold et al's system to have been able to "specify the orientation and

placement of a page" (Lahey et al, column 8, lines 49-50) using a specific location

(corner) of content for more accurate alignment.

With regards to claim 18, which depends on claim 17, for performing a similar

method to claim 2, is rejected under the same rationale.

With regards to claim 33, which depends on claim 32, for an apparatus

performing a method similar to the method in claim 2, is rejected under the same

rationale.

5.   Claims 6, 7, 14, 22, 23, 37, and 38 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Arnold et al (US Application: US 2003/0167271 A1, published: Sep.

4, 2003, filed: Aug. 28, 2001), CTAN (Dante, published: October 2002, page 1) and Hull

(US Patent: 5,832,110, issued: Nov. 3, 1998, filed: May. 28, 1996) in further view of

Hansen (US Application: US 2002/0067502 A1, published: Jun. 6, 2002, filed: Dec. 4,

2000).

With regards to claim 6, Arnold et al, CTAN, and Hull teach generating pages

from a book, and performing the steps of claim 1 for all documents in a book, in claim 1,

and is rejected under the same rationale. However, Arnold et al, CTAN, and Hull do not

teach *selecting one or more groupings of PDF pages.*

However, Hansen teaches *selecting one or more groupings of PDF pages*

(paragraph 0016: whereas a group of pages are selected and identified for processing).

It would have been obvious to one of the ordinary skill in the art at the time of the

invention to have modified Arnold et al, CTAN, and Hull's PDF alignment system to

further include the ability to align only selected groupings of PDF pages as taught by

Hansen. The combination of Arnold et al, CTAN, Hull, and Hansen, would have allowed

Arnold et al's system to have the ability to have "grouped the pages or elements

destined for a specific printing device" (paragraph 0011) or print-output.

With regards to claim 7, Arnold et al, CTAN, Hull, and Hansen teach a method for

selecting a grouping of PDF pages as explained in claim 6, and is rejected under the

same rationale. Furthermore, Hansen teaches *"any particular page... may belong to*

more than one group of pages" (paragraph 0038: thus , any page includes pages that

are odd or even).

With regards to claim 14, Arnold et al, CTAN, and Hull teach generating *aligned*

PDF pages, in claim 1, and is rejected under the same rationale. However, Arnold et al,

CTAN, and Hull do not teach printing the PDF pages after they are aligned.

Hansen teaches a method for *printing PDF pages* (paragraph 0023: whereas, electronic

composite documents such as PDFs are printed).

It would have been obvious to one of the ordinary skill in the art at the time of the

invention to have modified Arnold et al, CTAN, and Hull's PDF alignment system to

further include the ability to print PDF pages. The combination of Arnold et al, CTAN,

Hull, and Hansen would have allowed Arnold et al's system to have been able to output

the PDF pages in printed form.

With regards to claim 22, which depends on claim 17, for performing a method

similar to claim 6, is rejected under the same rationale.

With regards to claim 23, which depends on claim 22, for performing a method similar to claim 7, is rejected under the same rationale.

With regards to claim 37, which depends on claim 32, for an apparatus performing a method similar to the method in claim 6, is rejected under the same rationale.

With regards to claim 38, which depends on claim 37, for an apparatus performing a method similar to the method in claim 7, is rejected under the same rationale.

6.   Claims 8, 9, 24, 25, 39, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold et al (US Application: US 2003/0167271 A1, published: Sep. 4, 2003, filed: Aug. 28, 2001), CTAN (Dante, published: October 2002, page 1) and Hull (US Patent: 5,832,110, issued: Nov. 3, 1998, filed: May. 28, 1996) and Hansen (US Application: US 2002/0067502 A1, published: Jun. 6, 2002, filed: Dec. 4, 2000) in further view of Altamura et al (IJDAR, published: November 7, 2000, pages 1-9).

With regards to claim 8, which depends on claim 7, Arnold et al, CTAN, Hull, and Hansen teach *the selected grouping(s)*, as explained in claim 6, and is rejected under the same rationale. However, Arnold et al, CTAN, Hull, and Hansen do not teach *selecting a common feature for each grouping is a header or footer.*

Altamura et al teaches *selecting a common feature* in a document by recognizing/*selecting* a *header and footer.* whereas, WISDOM++ uses document analysis and recognition technology (P7-3) to recognize document structures including headers (P8-1 and P8-2: whereas, header information and the page number (located

inside the header) are selected/located as a common feature in a document, and saved as attribute information).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Arnold et al, CTAN, Hull, and Hansen's PDF alignment of grouped PDF pages, such that groups are formed by using the additional ability to select header information as a common attribute among documents as taught by Altamura et al. The combination of Arnold et al, CTAN, Hull, Hansen, and Altamura et al would have allowed the implementation of document segmentation into classified blocks such that "information on the logical structure of the document" (P8-3) is recognized/selected.

With regards to claim 9, which depends on claim 8, for a method wherein the common feature is the page number, is similarly explained in claim 8, and is rejected under the same rationale.

With regards to claim 24, which depends on claim 23, for performing a method similar to claim 8, is rejected under the same rationale.

With regards to claim 25, which depends on claim 24, for performing a method similar to claim 9, is rejected under the same rationale.

With regards to claim 39, which depends on claim 38, for an apparatus performing a method similar to the method in claim 8, is rejected under the same rationale.

With regards to claim 40, which depends on claim 39, for an apparatus performing a method similar to the method in claim 9, is rejected under the same rationale.

7.   Claims 15, 16, 30, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold et al (US Application: US 2003/0167271 A1, published: Sep. 4, 2003, filed: Aug. 28, 2001), CTAN (Dante, published: October 2002, page 1) and Hull (US Patent: 5,832,110, issued: Nov. 3, 1998, filed: May. 28, 1996) in further view of Nakagiri et al (US Patent: 6,616,359 B1, published: Sep. 9, 2003, filed: Nov. 2, 2000) and MacLean et al (US Application: US 2003/0103238 A1, published: Jun. 5, 2003, filed: Nov. 30, 2001).

With regards to claim 15, which depends on claim 1, Arnold et al, CTAN, and Hull teach a method for *aligning PDF pages to a selected feature*, in claim 1, and is rejected under the same rationale.

However, Arnold et al, CTAN, and Hull do not teach *selecting one or more groupings of PDF pages, previewing one of the PDF pages of the selected groupings, placing a first cursor on a feature of the content of the previewed PDF page, and aligning grouped PDF pages.*

Nakagiri et al teaches *selecting one grouping of pages* (Abstract: whereas, a print job is selected which contains a grouping of pages to be printed), *and previewing one of the selected pages of the selected grouping* (Fig 28: whereas, one of the pages selected in the grouping are displayed in a preview window).

It would have been obvious to one of the ordinary skill in the art to have modified Arnold et al, CTAN, and Hull's PDF alignment system to further have included the ability to select a group of pages, and previewing one of the pages in a grouping as taught by Nakagiri et al. The combination of Arnold et al, CTAN, Hull, and Nakagiri et al would have allowed Arnold et al's system to select and preview a group of PDF pages, and to have further "manipulated pages while their previews are displayed and recognizing the correspondence between jobs and pages" (Nakagiri et al, column 1, 55-57).

However, Arnold et al, CTAN, Hull, Nakagiri et al do not teach *placing a first cursor on a feature of the content of the previewed page.*

MacLean et al teaches placing *a first cursor on a feature of the content of a page*: whereas, a user marks/annotate/apply-cursor to the content of a document (paragraph 0012: whereas the mark/cursor is used to correlate/align a second document displayed on a screen by locating the feature indicated by the mark/cursor in a second document), and furthermore the document is scanned and converted to a PDF (paragraph 0055, Fig 4, reference number 50).

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Arnold et al, CTAN, Hull, and Nakagiri et al's system for previewing a group of aligned PDF pages, to further include the ability to apply a cursor or mark to a PDF document as taught by MacLean et al, such that the cursor/mark is applied to one of the previewed PDF pages. The combination would have allowed a "correlation step by identifying at least one alignment point on the document" (MacLean et al, paragraph 0012).

With regards to claim 16, which depends on claim 15, Arnold et al, CTAN, and Hull teach *moving the content area of the displayed* image to manually *align* the feature in one image to the common feature in a second image, as taught in claim 13, and is rejected under the same rationale.

Arnold et al, CTAN, Hull, Nakagiri et al, and MacLean teach:

- *Previewing other PDF pages of the groupings*, as explained in claim 15, and is rejected under the same rationale.

- *Applying a cursor on a feature of a first previewed PDF page*, in claim 15, and is rejected under the same rationale.

However, Arnold et al, CTAN, Hull, Nakagiri, and MacLean do not teach applying a second cursor to the corresponding feature in the other previewed pages.

Yet, it would have been obvious to one of the ordinary skill in the art at the time to the invention to have used Arnold et al, CTN, Hull, Nakagiri et al, and MacLean's method for applying a cursor to a feature on a first preview page, to also use the same method to apply a cursor to other PDF pages in the groupings. The combination would thus have allowed users of Arnold et al's system to have been able to create alignment points for all pages in a group, such that the second cursor would have been aligned with the first cursor using the method of manual image alignment/registration, as explained earlier in this claim.

With regards to claim 30, which depends on claim 17, for performing a method similar to the method in claim 15, is rejected under the same rationale.

With regards to claim 31, which depends on claim 30, for performing a method similar to

the method in claim 16, is rejected under the same rationale.

8.   Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arnold

et al (US Application: US 2003/0167271 A1, published: Sep. 4, 2003, filed: Aug. 28,

2001) in further view of CTAN (Dante, published: October 2002, page 1), Larson (US

Application: US 2002/0188635, published: Dec. 12, 2002, filed: Mar. 7, 2002), and

Lahey et al (US Patent: 5,999,945, issued: Dec. 7, 1999, filed: Sep 15, 1997).

With regards to claim 45, Arnold et al, and CTAN teach generating a plurality of

files corresponding to cropped pages of a book, as explained in claim 1, and is rejected

under the same rationale. However Arnold et al and CTAN do not teach *grouping the*

files according to size, selecting standards for each grouping, and aligning the pages

according to the selected standards.

Larson teaches *grouping* image *files according to size* (paragraph 0021:

whereas, image files are sorted into one or more groups based on image size).

It would have been obvious to one of the ordinary skill in the art at the time of the

invention to have modified Arnold et al and CTAN's PDF cropping system to further

include the ability to group files (such as PDF files) based on size as taught by Larson.

The combination of Arnold et al, CTAN, and Larson would have allowed Arnold to have

implemented a method for grouping PDF files based on file size.

However, Arnold et al, CTAN, and Larson do not teach *selecting standards for*

each grouping, and aligning the pages according to the selected standards.

Lehay et al teaches *selecting standards for each grouping, and aligning the pages according to the selected standards* (Fig 6a, Table 6, column 23: whereas, each print job is comprises a group of pages (including PDFs, column 6, lines 11-12) and pages are aligned based on selecting a standard, such as the page placement standard of 'upper left')

It would have been obvious to one of the ordinary skill in the art at the time of the invention to have modified Arnold et al, CTAN, and Larson et al's system to further include the ability to align a group of PDF pages using a selected standard as taught by Lehay et al. The combination Arnold et al, CTAN, Larson, and Lehay et al, would have allowed Arnold et al's system to have been able to specify print attributes for multiple files, as opposed to a single file (Lehay et al, column 2, lines 24-29).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kaushikkar et al (US Application: US 2002/0025082 A1, published: Feb. 28, 2002, filed: Jul. 17, 2001): This reference teaches aligning a second image based on alignment data of first image.

- Chung et al (US Application: US 2003/0173404 A1, published Sep. 18, 2003, filed: Apr. 10, 2003, EEFD: Apr. 10, 2003): This reference teaches the use of reference marks (fiducials) to indicate orientation/alignment and scale of an image.

- Lewis et al (US Application: US 2002/0173723 A1, published: Nov. 21, 2002, filed: Dec. 27, 2001): This reference teaches aligning two images using fiducial marks (common marks among first and second image) for alignment purposes.

- Takaoka et al (US Application: US 2002/0059337 A1, published: May 15, 2002, filed: Sep. 10, 2001): This reference teaches storing and generating PDFs, and also aligning PDF pages.

- Soubelet et al (US Application: US 2002/0090124 A1, published: Jul. 11, 2002, filed: Dec. 19, 2001): This reference teaches the display of aligned image data.

- Venable et al (US Patent: 6,738,154 B1, issued: May 18, 2004, filed: Jan. 21 1997): Images are aligned in a predetermined fashion based on a master template/page.

- Forde (US Application: US 2003/0012435, published: Jan. 16, 2003, filed: Jun. 17, 2002): This reference teaches alignment of images based on cropped region of interest, by sampling region of interest in base/master image.

- O'Dell et al (US Patent: 6,324,298 B1, issued: Nov. 27, 2001, filed: Jul 13, 1999): This reference teaches the alignment of images by aligning common features between images.

- Herman et al (US Patent: 6,075,905, issued: Jun. 13, 2000, filed: Jul. 18, 1997): This reference teaches aligning multiple images through common

feature overlap, where the common feature(s) is/are selected from a

source image.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Wilson Tsui whose telephone number is (571)272-7596.

The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Stephen Hong can be reached on (571) 272-4124. The fax phone number

for the organization where this application or proceeding is assigned is 571-273-8300.

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Wilson Tsui
Patent Examiner
Art Unit: 2178
April 10, 2006

STEPHEN HONG
SUPERVISORY PATENT EXAMINER